

Translation

PATENT COOPERATION TREATY

PCT/EP2003/007464



# PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 41 097.go.sev	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/007464	International filing date (day/month/year) 10 July 2003 (10.07.2003)	Priority date (day/month/year) 26 July 2002 (26.07.2002)
International Patent Classification (IPC) or national classification and IPC B21B 1/28, 3/02		
Applicant SMS DEMAG AKTIENGESELLSCHAFT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.	
<input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).	
These annexes consist of a total of <u>3</u> sheets.	
3. This report contains indications relating to the following items:	
I	<input checked="" type="checkbox"/> Basis of the report
II	<input type="checkbox"/> Priority
III	<input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/> Lack of unity of invention
V	<input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/> Certain documents cited
VII	<input type="checkbox"/> Certain defects in the international application
VIII	<input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 23 January 2004 (23.01.2004)	Date of completion of this report 18 October 2004 (18.10.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/007464

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_ 1-12 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_ 1-12 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 23 July 2004 (23.07.2004)
- ☒ the drawings:  
pages \_\_\_\_\_ 1/1 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims	1-12	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

**2. Citations and explanations**

1. The application relates to a method (claim 1) and a device (claim 6) for the continuous production of a cold-rolled metal strip, in particular a stainless steel strip.

The closest prior art - according to the preamble of the independent claims - is mentioned in the application, in particular in reference to documents US-A-2001/0037667 (D2) and DE-C-100 22 045 (D3).

The problem to be solved can be regarded as that of increasing the efficiency of the process while ensuring the high surface quality of the finished strip.

The solution involves carrying out the cold rolling process only after heating and chemical treatment.

The chemical treatment after heating ensures a higher quality of the subsequent rolling process. Furthermore, in the case of heating and chemical treatment after rolling, longer annealing furnaces and pickling lines are required because, in the process, the strip will have become longer.

WO-A-99/43451 (D1) does not disclose an unwinding unit for the warm-rolled metal strip, because the metal strip is continuously cast, treated and rolled.

2. The other claims are dependent and therefore meet the requirements of PCT Article 33.
3. Observation with respect to the clarity (PCT Article 6) of claim 6. The protruding unwinding unit is regarded as part of the claimed device, since otherwise a portion of the arrangement according to D1 would correspond to the combination of features according to claim 6.

TRANSLATION (HM-613PCT-IPER) :

## TREATY ON INTERNATIONAL COOPERATION IN THE AREA OF PATENTS

### PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT (Article 36 and Rule 70 of the PCT)

Applicant's or Agent's File Ref. 41097.go.nb	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of the International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No. PCT/EP03/07464	International Filing Date (Month/Day/Year) July 10, 2003	Priority Date (Month/Day/Year) July 26, 2002
International Patent Classification (IPC) or National Classification and IPC B21B 1/28		
Applicant SMS DEMAG AKTIENGESELLSCHAFT et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 pages, including this cover sheet.

- ☒ This report is also accompanied by ANNEXES, i.e., pages of the description, claims, and/or drawings which have been amended and are the basis for this report and/or pages containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 pages.

3. This report contains indications relating to the following items:

- |      |                                     |   |
|------|-------------------------------------|---|
| I    | <input checked="" type="checkbox"/> | Basis of the report   |
| II   | <input type="checkbox"/>            | Priority  |
| III  | <input type="checkbox"/>            | Non-establishment of opinion with regard to novelty, inventive activity, or commercial viability.   |
| IV   | <input type="checkbox"/>            | Lack of unity of invention.   |
| V    | <input checked="" type="checkbox"/> | Substantiated determination under Rule 66.2 a(ii) with regard to novelty, inventive activity, and commercial viability; citations and explanations supporting such statement. |
| VI   | <input type="checkbox"/>            | Certain documents cited   |
| VII  | <input type="checkbox"/>            | Certain defects in the international application  |
| VIII | <input type="checkbox"/>            | Certain observations on the international application   |

Date of submission of the petition: January 23, 2004	Date of completion of this report: October 18, 2004
Name and mailing address of the office assigned to perform the preliminary examination: European Patent Office D-80298 Munich Tel: +49 89 2399-0 Tx: 523656 epmu d Fax: +49 89 2399-4465	Authorized Officer: Meritano, L Tel: +49 89 2399-7311

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International File No.: **PCT/EP03/07464**

## I. Basis of the Report

1. With regard to the **constituent parts** of the international application (*replacement pages which were submitted to the application office in compliance with a request according to Article 14 are considered "originally filed" in the context of this report and are not attached to the report, because they do not contain any changes (Rules 70.16 and 70.17)*):

### Specification, pages:

1-12 as originally filed

### Claims, Nos.:

1-12 as received on July 27, 2004 with letter of July 23, 2004

### Drawings, Pages:

1/1 as originally filed

2. With respect to the **language**, all the constituent parts marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise cited under this item.

The constituent parts were available or furnished to this Authority in the following language: . . . . .  
which is:

- ☐ the language of a translation furnished for the purpose of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purpose of international preliminary examination (under Rule 55.2 and/or Rule 55.3).

3. With regard to the **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer-readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer-readable form.

- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer-readable form is identical to the written listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description,                      pages:
- ☐ the claims,                      Nos.:
- ☐ the drawings,                      sheets/figures:

5. ☐ This report has been prepared as if (some of) the amendments had not been made, since for the specified reasons they are considered by this Authority to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Any additional remarks:

**V. Substantiated determination according to Article 35(2) with respect to novelty, inventive activity, and commercial viability; documents and declarations in support of this determination.**

1. Determination

Novelty (N)	Yes: Claims 1-12
	No: Claims
Inventive Activity (AI):	Yes: Claims 1-12
	No: Claims
Commercial Viability (CV):	Yes: Claims 1-12
	No: Claims

2. Documents and Declarations

**See attached page.**

## INTERNATIONAL PRELIMINARY

### EXAMINATION REPORT – ATTACHED PAGE

International File No.: PCT/EP03/07464

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1. The application pertains to a process (Claim 1) and to a system (Claim 6) for the continuous production of a cold-rolled metal strip, especially high-grade metal strip.

The closest state of the art -- according to the introductory clauses of the independent claims -- is explained in the application, especially with reference to the documents **US 2001/0037667(A)** (D2) and **DE 100 22 045 C** (D3).

The task to be accomplished can be seen as an improvement in the economy of the process while obtaining a finished strip with high surface quality.

According to the solution, the cold-rolling process is carried out only after the heating and the chemical treatment.

The chemical treatment after the heating step ensures a higher quality of the subsequent rolling process. If the heating and the chemical treatment are carried out after rolling step, furthermore, longer annealing furnaces and pickling lines are required, because the length of the strip has increased in the meantime.

**WO 99/43451(A)** (D1) does not disclose an uncoiler for the hot-rolled metal strip, because the metal strip is strand-cast, treated, and rolled in a continuous process.

2. The other claims are dependent and therefore satisfy the requirements of Article 33 of the PCT.
3. Remark on the clarity (Article 6 of the PCT) of Claim 6. The above-mentioned uncoiler is to be understood as a component of the claimed system, because otherwise a part of the system according to **D1** would correspond to the combination of features according to Claim 6.